Page 1 January 18, 2010 1:07:44 PM D6103-003 Accept Item ID: Setup Start **Revision ID:** Stop Round Billet, Aluminum Item Name: **Start Qty: 40.00 Start Date:** 1/18/10 **Cust Item ID:** Req'd Qty: 40.00 Required Date: 1/21/10 **Customer:** Reference: Start Run Date(0-/-/8 Tooling: Date: Approvals: Stop Date: SPC (Y/N): Date: Plan Reject Reject Insp. Sequence ID/ Operation Set Up/ Draw Draw Accept Qty Qty Number Stamp Description Number Rev. Code Work Center ID **Run Hours Revision Nbr Draw Nbr** D6103 Rev B 0.00 100 BS10-1-18 **PURCHASING** 0.00 Purchasing □a)Description: Alluminum round billet □ b) Purchasing Ø3.500" x 12.500" long c) Tolerance on all dimensions are +0.030"/-0.000" d) Material: 7075-T7351 (QQ-A-225/9) Material certification required 0.00 110 Receive & Inspect for Damage & Mat'l Certs 10/2/4 (33) 0.00 Packaging Memo Ensure material certification is attached Packaging

120

QC

Memo

QC6- Inspect dimensions to drawing

0.00

0.00

and 10/02/10

Quality Control

W/O:			V	ORK ORDER CHANG	SES				
DATE STEP		PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
			V.1.						
Part No.		DAD #.	Foult Co.		NOD V				
rait NO		PAR #: esolution:							
NCR:	,			DER NON-CONFORM					
DATE	STEP	Description of NC Section A	Initial Chief Eng	Corrective Action Sect Action Description Chief Eng	tion B Sign Date	& Secti	cation on C	Approval Chief Eng	Approval QC Inspector
·				Olio Eng	Jun				



January 18, 2010 1:07:44 PM

Item ID:

D6103-003

Accept



Setup Start

Stop



Revision ID:

Item Name:

Round Billet, Aluminum

Start Date:

1/18/10

Start Qty: 40.00

Req'd Qty: 40.00

Operation

Description



Cust Item ID:

Customer:

Draw

Number

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Start Run

Reject

Qty

Reject

Required Date: 1/21/10

QC:

Date:

SPC (Y/N):

Date:

Draw

Rev.

Plan

Code

Stop

Number Stamp

Insp.

Sequence ID/ **Work Center ID**

130

Packaging

Set Up/ **Run Hours**

0.00

Accept

Qty

0.00 Memo

Identify as per dwg & Stock Location:

Packaging

140

QC

Quality Control

Memo

QC21- Final Inspection - Work Order Release

0.00

0.00

10 los/1675

Dart Aerospace L	_td
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	•								7
W/O:			WC	RK ORDER CHAN	GES				
DATE STEP		PROCEDURE CHANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
Dort No		DAD #						_	
		PAR #:							
NCR:				R NON-CONFORM					
DATE	STEP	Description of NC	Description of NC Section A Corrective Action Initial Action Description		ction B		fication	Approval	Approval
		Section A	Chief Eng	Action Description Chief Eng	Date	Secti	Section C	Chief Eng	QC Inspector
						-	=1		
			1 1						•

Picklist Print

January 18, 2010 1:07:49 PM

Work Order ID: 55430

Parent Item: D6103-003

Round Billet, Aluminum Parent Item Name:

IPP Rev:A New Issue 06-02-09 JLM Comments:

Start Date: 1/18/10

Start Qty: 40.00

Required Date: 1/21/10

Required Qty: 40.00

Item Name		Item
D6103-003P	-	

Replacement	Mfg/
Item ID	Purch

Purchased

Bin	Primary
Item	Location

No

Last	
Location	

Rou	te
Seq	ID

110

Unit of	•
Measure	ŀ

Each

Hand

0.0000

Qty on Remaining Qty Qty To Pick Issued



Status

Page 1

Component Item ID/



round alum billet

40.0000

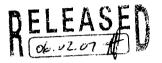
Dart Aerospace	Ltd
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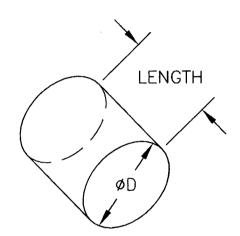
WORK ORDER CHANGE BY Date Qty Cheef Eng/Prod Migr Part No: Resolution: PAR #: Fault Category: NCR: Yes No DQA: Date: _ Resolution: Disposition: QA: N/C Closed: Date: _ NCR: WORK ORDER NON-CONFORMANCE (NCR) DATE STEP Description of NC Soction A Cheef Eng	•
Part No:PAR #: Fault Category: NCR: Yes No DQA: Date:	
Resolution:	Approval QC Inspector
Resolution:	
DATE STEP Description of NC Section A Initial Action Description Sign & Section C Chief Eng.	
DATE STEP Description of NC Section A Initial Action Description Sign & Verification Approval	
Section A Initial Action Description Sign & Section C Chief Eng	Approval QC Inspector



DESIG	<u>п</u> Р у /	DRAWN BY	DART AEROSPACE HAWKESBURY, ONTARIO, CANA	
CHEC	KED , j	APPROVED //	DRAWING NO.	Rev. B
	妣	1	D6103	SHEET 1 OF 1
DATE		-	TITLE	SCALE
06.0	01.31_		ROUND BILLET, ALUMINUM	NTS
Α		01.04.10	NEW ISSUE	
В		06.01.31	ADD D6103-003	

SPECIFICATION CONTROL DRAWING





SHOP COPY RETURN TO ENGINEERING UNCONTROLLED COP' SUBJECT TO AMENDMENT WITHOUT NOTICE

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, DIAMETER x LENGTH (+0.030/-0.000) AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

Alloy	D (Diameter)	Length
7075-T6/T651 (QQ-A-200/11 OR QQ-A-225/9)	Ø3.250	12.50
7075-T7351 (QQ-A-225/9)	Ø3.500	12.50
•		
	7075-T6/T651 (QQ-A-200/11 OR QQ-A-225/9)	7075-T6/T651 (QQ-A-200/11 OR QQ-A-225/9)

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	Dart	Aeros	pace	Ltd
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W/O:			W	ORK ORDER CHANGI	ES	***************************************			
DATE	STEP	PRO	OCEDURE CHA	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
Part No	:	PAR #:	Fault Cate	gory:	NCR: Ye	s No D	QA:	Date: _	
	R	esolution:	Dispositio	n:	QA: N/C	Closed: _		Date: _	
NCR:			WORK ORD	ER NON-CONFORMA	NCE (N	CR)			
DATE	STEP	Description of NC	Initial	Corrective Action Section			ification	Approval	Approval
		Section A	Chief Eng	Action Description Chief Eng		Sign & Section C		Chief Eng	QC Inspector
,									
					3				

NOTE: Date & initial all entries

H:\\fORMS\Quality Assurance\approved QA\NCRWO RevE



Tennalum PO Box 669 Jackson, TN 38302 731-423-2811



CERTIFIED TEST REPOR

http://www.KaiserAluminum.cor

CUSTOMER PO NUMB	ER:	CUSTOMER PART NUMBER	PRODUCT DESCR	PRODUCT DESCRIPTION:						
01-17386		8808	Cold Finished	Cold Finished Round						
KALSER ORDER NUMB	ER: LINE ITEM:	SHIP DATE:	ALLOY:	TEMPER:						
648879	1	01/05/2009	7075	T7351						
WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:					
1967 lbs.	14 pcs.	28952	3.500 in.	0.000 in.	144.0 in.					
SHIP TO: A M Castle & Co AM Castle & Co. 3400 No. Wolf R Franklin Park, IL	oad		SOLD TO: A M Castle & AM Castle & 3400 No. Wolfranklin Park	Co,						

Test Code: 1000 AC

Actual Physical Properties

Lot Number	long. UTS	LONG. YTS	LONG. ELONG.		COND
	/ ksi	ksi	· %	₩	IACS
20117526,	70.3	58.7	16.0		39.3

Chemical Composition, WT. % (Aluminum Remainder)

				1	•			•		_	
	Si	Fe	Сū	Mn	Mg	Cr	Zn	£T.	OTHERS EACH	OTHERS TOTAL	Lot
Actual Max Min	0.11	0.50	1.5 2.0 1.2	0.30	2.9	0.20 0.28 0.18	6.1	0.20	0.05	0.15	20117526

Specifications

Standard: ISO 9001, ASTMB211-03, AMS4124D, AMS-QQ-A-225/9 Non-Standard: A97075-11-9

m/ 10/02/11

CERTIFICATION

Kaiser Aluminum & Chemical Corporation ("Kaiser") hereby certified that the motal shipped under this order habeen inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser general terms and conditions of sale. Test reports are on file, subject to examination.

John Rennekamp, Quality Manager

Plant Scrial: 117

Kaiser Order Number: 648:

Line Item



Page 1 of 2



Tennalum PO Box 669 Jackson, TN 38302 731-423-2811



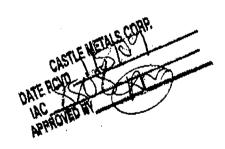
CERTIFIED TEST REPORT

http://www.KalserAlumInum.com

Miscellaneous Notes

Made in USA

This material was melted and manufactured in the USA. Mercury is not a normal contaminant in aluminum alloys. Neither mercury nor any of its compounds were utilized by Kaiser Aluminum in the manufacture of this material. AS9100B:2004 This material meets the requirements of (cold finished) T73 temper and QQ-A-225/9E (CANCELLED). NAFTA - YES. Material is ROHS compliant.



CERTIFICATION

Kaiper Aluminum & Chemical Corporation ("Kaiser") hereby certifies that the metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

John Rennekamp, Quality Manager

April Paris

Plant Serial: 117651

Kaiser Order Number: 648879

Linc Item: 1



FABRICATED PRODUC

Tennalum PO Box 669 Jackson, TN 38302 731-423-2811



CERTIFIED TEST REPORT

http://KaiserEngProd.com

CUSTOMER PO NUMBER:	cus	TOMER PART NUMBER:	PRODUCT DESCRIPTI	PRODUCT DESCRIPTION:						
02-31665	880)8	Cold Finished Ro	Cold Finished Round						
KAISER ORDER NUMBER:	LINE ITEM:	SHIP DATE:	ALLOY:	TEMPER:						
649109 1		02/06/2009	7075	T7351						
WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:					
987 lbs.	7 pcs.)	29084	3.500 in.	0.000 in.	144.0 in.					
SHIP To: A M Castle & Co 14001 Orange Ave Paramount, CA 907	23 USA		A M Castle & Co AM Castle & Co. 3400 No. Wolf R Franklin Park, IL	oad						

Test Code: 1000 AC

Actual Physical Properties

Lot Number	LONG.	LONG.	LONG.		
	UTS	YTS	ELONG.	1	COND
	ksi	ksi	€:	8	IACS
20117801	71.5	60.1	15.0		38.6

Chemical Composition, WT. % (Aluminum Remainder)

-	Вi	Fe	Cu	Mn	Mg	Cr	Zn	Ti	OTHERS EACH	OTHERS TOTAL	Lot	
Actual Max Min	0.13	0.28		0.30	2.9		6.1		0.05	0.15	20117801	

Specifications

Standard: ISO 9001, ASTMB211-03, AMS4124D, AMS-QQ-A-225/9 Non-Standard: A97075-11-9

m/ 10/02/10 CASTLE METALS - LA

DATE REC'D ALTOG

RD #/MILL KOU SEY 3004

APPROVED BY APPR

CERTIFICATION

Kaiser Aluminum & Chemical Corporation ("Kaiser") hereby certifies that the metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

John Rennekamp, Quality Manager

Plant Serial: 119239

Kaiser Order Number: 649109

Page 1 of 2

Line Item: 1



Tennalum PO Box 669 Jackson, TN 38302 731-423-2811



CERTIFIED TEST REPORT

http://KaiserEngProd.com

Miscellaneous Notes

This material was melted and manufactured in the USA. Mercury is not a normal contaminant in aluminum alloys. Neither mercury nor any of its compounds were utilized by Kaiser Aluminum in the manufacture of this material. This material meets the requirements of (cold finished) T73 temper and QQ-A-225/9E (CANCELLED). NAFTA - YES. Material complies with FAR BAA (FAR 52.225-1, Buy American Act-Supplies), DFARS BAA (DFARS 252.225-7001 Buy American Act & Bal of Payments Prog), and FAR TAA (FAR 52.225-5 Trade Agreements) AS9100B:2004 Material is RoHS compliant.

Kalser Aluminum & Chemical Corporation ("Kaiser") hereby certifies that the metal shipped under this order has been inspected and found in conformance with the applicable energifications forming a part of the Kaiser Aluminum & Chemical Corporation ("Kaiser") nereby certifies that the metal shipped under this order his been inspected and tested and found in conformance with the applicable specifications forming a part of the description agr forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on kaise been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on maiser's description set forth in Kaiser's sales acknowledgement form. The subject to examination. description set forth in Kälstr's sales acknowledgement form. Any warranty is limited to general terms and conditions of sale. Test reports are on file, subject to examination. Plant Serial: 119239

John Rennekamp, Quality Manager

Kaiser Order Number: 649109

Line Item: 1

page 2 of 2



A. M. Castle & Co.

PACKING SLIP

Page 1 of 1

Pack Slip No:182813

Ship From:		Sold To		Ship To:		Deliver To:	
Castle Metals		DART A	EROSPACE LTD	CASTLE		,	
Los Angeles		1270 AB	ERDEEN	METALS-MUNTREAL			
14001 Orange Av	enue	HAWKE	SBURY, ON K6A 1K7	LABOR BUY ACCOUN	T		
Paramount, CA 90	723			SHIP TO VENDOR FOR	R		
				LABOR	- 1		
				POINTE CLAIRE, QC H	19R		
				3S2			
Date Shipped	F.O.B.		Freight Terms	Carrier	BO	L No	Delivery No
22-JAN-10	ORIGIN		Prepaid	CASTLE_NETWOR K		936	14052294

Shipment Details	5				F	Final Destination Branch -						
Order No	Lin	e No	Item No		Description							
515862	1		8808.MO			3.5000.RD.7075.T7351.ALUMINUM.CF.132.0000-144.0000 CUT TO 12.5 IN (+ .1250/0000 IN) - BAND SAW CUTTING SPECIFICATIONS: AMS 4124,AMS QQ-A-225/9.ASTM B211						
Purchase Order	Part N	lumber	··-		rdered C		Invoice Qty	-A-22	Backorder Qty			
11160					3	3 PCS	33 PCS		.			
Details												
Mill		Heat Num	ber	Mech ID	PCS		Width (IN)	Length (IN)	Ship	ped Qty (LBS)		
KAISER ALUMII	KAISER ALUMINUM 20117			1-3-10 1000 m	22	16			266.7	· · · · · · · · · · · · · · · · · · ·		
KAISER ALUMINUM 2011		20117801	20117801 -		4	() 1			48.5			
KAISER ALUMII	40	7		1		84.88						

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description.

Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

This material has been received and inspected by:





Chantal Lavoie

From:

Camilli, Tracy [tcamilli@amcastle.com]

Sent:

February 10, 2010 10:42 AM

To:

clavoie@dartaero.com

Cc:

Desbiens, Marc; Boucher, Christiane

Subject:

FW: Certs/ packing slip # 182813

Importance: High

Attachments: Castle Metal.jpg; Castle Metal-2.jpg; Castle Metal-3.jpg

Please be advised that what you see as the quantity on the Kaiser Cert doesn't reflect your order- this information provided lies with Castle's " at time " receiving.

Thank you, Tracy Camilli Administration x 52239 Métaux Castle/ Castle Metals

T/D: 514-693-8189 F: 514-695-3281

From: Chantal Lavoie [mailto:clavoie@dartaero.com] Sent: Wednesday, February 10, 2010 7:22 AM

To: Camilli, Tracy

Subject: Certs/ packing slip # 182813

Importance: High

Please find attach copies of certs and packing slip.

The qty and heat # doesn't match! As per our quality control inspector, everything should be the same!! Thank You

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Dart Aerospace Ltd

	. Johaco								
W/O:			WC	ORK ORDER CHANG	ES				
DATE	STEP	PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #:	Fault Cate	NCR: Yes	CR: Yes No DQA: Date:				
	Re	esolution:					Date:		
NCR:		\	WORK ORDI	ER NON-CONFORMA	NCE (NCI	R)			
DATE	STEP	Description of NC			on B	Verification		Approval	Approval
		Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date		ion C	Chief Eng	QC Inspector
									,
			·						